UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No. 09/724,777	Applicant(s) ABBOTT ET AL.
	Examiner Tadesse Hailu	Art Unit 2173

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _28 November 2000_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-63_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _1-8 and 52-56_ is/are allowed.

6)☐ Claim(s) _9-12,14-22,26-30,32-43,46-51,57 and 59-63_ is/are rejected.

7)☒ Claim(s) _13,23-25,31,44,45 and 58_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _7_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

U.S. Patent and Trademark Office
PTO-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. 8

DETAILED ACTION

1.   This Office Action is in response to the patent application (09/724,894) filed Nov 28,

2000, and the Office Action is in response to pre-amendment entered July 02, 2001.

2.   The present patent application claims priority from US Application 09/216,193 filed

12/18/1998, now patent number 6,466.232.

3.   The submitted Information Disclosure Statement with references is considered and

entered.

4.   The pending claims 1-63 are examined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

5.   Claims 9-12, 14-17, 19-22, 26-30, 32-43, 46-51, 57, 59-63 are rejected under 35

U.S.C. 102(e) as being anticipated by Theimer et al (US 5,611,050).

With regard to claim 9:

As per "A method in a computer for providing information about a current state that is modeled with multiple state attributes," likewise, Theimer describes methods for detecting, selecting and controlling computer controlled devices, based on the proximity of the device to the user, the current context of the user, the location of other nearby users and devices, and the current state of the devices (abstract);

As per "receiving from a first source an indication of an ability to supply values for an indicated one of the state attributes of the modeled current state;" Theimer describes a UserAgent receiving location information (of physical objects near the user) from a Location Service (first source) (column 17, lines 51-column 20, lines 46);

As per "receiving from a second source an indication of an ability to supply values for another of the state attributes of the modeled current state;" Theimer further describes a UserAgent receiving location information of the user from a Badge Service (second source) (column 20, lines 47-column 21, lines 53); and

As per "in response to receiving a request from a first client for a value of the indicated one attribute, determining that the first source is available to supply the value;" Theimer further describes the UserAgent in response to receiving request from a user/client for a specific value of the indicated attribute, determining that the Location Service (first source) is available to supply the value (column 17, lines 51-column 20, lines 46); and

As per "obtaining the value from the first source;" Theimer further describes that userAgent receiving the requested data value from the Location Service (first source) (column 17, lines 51-column 20, lines 46);

As per "supplying a value obtained from the first source to the first client."

Theimer further describes the UserAgent supplying the value to the user/client (column

11, lines 16-34).

With regard to claim 10:

As per "... wherein the obtaining of the value for the one attribute from the first source

includes receiving descriptive information about the obtained value." (column 18, lines 19-36).

With regard to claim 11:

As per "... the supplying of the obtained value to the first client includes supplying the

descriptive information to the first client." (column 11, lines 16-34).

With regard to claim 12:

As per "... the supplying of the obtained value to the first client includes supplying art

indication of the first source." (column 11, lines 16-34).

With regard to claim 14:

As per "...before supplying the obtained value to the first client: determining whether the

obtained value satisfies a criteria for values supplied to the first client;" (column 8, lines 62-

column 9, lines 23); and

As per " when it is determined that the obtained value does not satisfy the criteria,

requesting at least one source to supply a value for the one attribute that satisfies the criteria;"

(column 8, lines 62-column 9, lines 23);

As per "receiving in response to the requesting at least one additional value for

the one attribute that satisfies the criteria;" (column 11, lines 16-34); and

as per "supplying to the first client a value for the one attribute based on the

received additional values." (column 11, lines 16-34).

<u>With regard to claim 15:</u>

As per "... the criteria is based on recency of the value." (column 10, lines 20-38).

<u>With regard to claim 16:</u>

As per "... storing values for attributes that are received from sources so that the stored

values can be later supplied to clients." (column 9, lines 24-37).

<u>With regard to claim 17:</u>

As per "... the one attribute represents information about a user of the computer."

(column 10, lines 4-19).

<u>With regard to claim 19:</u>

As per "... the one attribute represents a current prediction about a future state."

(column 10, lines 20-38; column 16, lines 5-8).

<u>With regard to claim 20:</u>

As per "... the one attribute represents information about the computer." (column 14,

lines 12-23).

<u>With regard to claim 21:</u>

As per "... the one attribute represents information about a physical environment."

(column 17, lines 51-column 18, lines 18).

<u>With regard to claim 22:</u>

As per "... the one attribute represents information about a cyber-environment of a user

of the computer." (column 9, lines 59-column 10, lines 3).

<u>With regard to claim 26:</u>

As per "...after receiving a request from the first client for a value of a second indicated

attribute and receiving a value from a source for the second attribute, supplying to the first client

the received value for the second attribute." (column 12, lines 18-51, column 13, lines 41-59).

With regard to claim 27:

As per "... the received value for the second attribute is from the first source." (column

16, lines 26-48).

With regard to claim 28:

As per "... after receiving a value for the one attribute from a third source, supplying the

received value to the first client." (column 16, lines 26-48).

With regard to claim 29:

As per "... after receiving a request from a second client for a value of the another

attribute and receiving a value from the second source for the another attribute, supplying the

received value to the second client." (column 10, lines 56-column 11, lines 4, column 21, lines

19-39).

With regard to claim 30:

As per "...the obtaining of the value from the first source by the intermediary

module involves requesting the first source to supply the value and receiving the

requested value in response, and wherein the received value from the first source in based

on input information related to the one attribute that is retrieved by the first source in

response to the requesting." (column 11, lines 16-48).

With regard to claim 32:

As per "...supplying to the first client a mediated value for the one attribute that is based on multiple received values for the one attribute." (column 21, lines 19-39).

With regard to claim 33:

As per "... receiving of the supplied value by the first client prompts the first client to present information to a user of the first client." (column 21, lines 19-39).

With regard to claim 34:

As per "...receiving from the first client an indication of a condition; and when it is determined that the condition is satisfied, notifying the first client." (column 11, lines 5-48).

With regard to claim 35:

As per "... the condition relates to a specified one of the state attributes having a specified value." (column 21, lines 19-39).

With regard to claim 36:

Claim 36, while not necessary identical in scope, contain limitations similar to independent claim 9 and therefore are rejected under the same rationale.

With regard to claim 37:

As per "... the computer readable medium is a memory of the computing device." (column 6, lines 46-62).

With regard to claim 38:

Independent claim 38 corresponds generally to independent claim 9 and recites similar features in computer-readable medium form, and therefore is rejected under the same rationale.

With regard to claim 39:

Independent claim 39 corresponds generally to independent claim 9 and recites similar

features in computing device (apparatus) form, and therefore is rejected under the same rationale.

With regard to claim 40:

As per "...the attribute mapping module, the attribute value request module, and

the attribute value supplier module are components of an intermediary module executing

in memory." (fig. 2, column 8, lines 44-56, column 13, lines 41-64).

With regard to claim 41:

As per "... multiple sources and multiple clients executing in the memory." (fig. 2).

With regard to claim 42:

Independent claim 42 corresponds generally to independent claim 9 and recites similar

features in computing device (means) form, and therefore is rejected under the same rationale.

With regard to claim 43:

As per "A method in a portable computer for providing information about a

context that is modeled with multiple context attributes," Theimer illustrates (fig. 2) and

describes the context of the system, i.e., the state of the user and device in the system,

positional information about users and devices, etc (column 7, lines 18-column 8, 56);

As per "receiving from each of multiple sources an indication of an ability to

supply values for at least one of the context attributes of the modeled context;" Theimer

describes that multiple sources, such as Location Service and Badge Service have the

capability to supply location information about the user (column 7, lines 18-column 8,

56);

As per "receiving from each of multiple clients an indication of a desire to receive

multiple values for one of the context attributes of the modeled context;" Theimer also describes

multiple clients (fig. 2) have the desire of locating the user or device via multiple sensors

(location and badge services) (column 10, lines 56-column 11, lines 4); and

As per "for each of the multiple clients, receiving multiple requests from the

client for a value for the one context attribute for which the client has indicated the desire

to receive values;" Theimer describes userAgent collects and manages user data, such as

user's location, if other users are interested to receive data value about the target user,

then the UserAgent, based on the stored user policy, may supply the value to those

interested users (column 11, lines 16-48); and

As per "after the receiving of each of the multiple requests, retrieving the requested value

by, determining whether any of the multiple sources currently has

an ability to supply values for the one context attribute for which the client has indicated

the desire to receive values;" Theimer describes that using RPC request protocol, both

Location Service and Badge Service (multiple sources) are capable of supplying location

information of a user or device (column 11, lines 16-48, column 20, lines 47- column 21,

lines 53);

As per "when at least one of the multiple sources is determined to have the ability,

requesting each of the determined sources to supply a value for the one context attribute;"

Theimer describes UserAgent request each of the service which are capable of providing

information value about location of the user (column 11, lines 16-48, column 20, lines

47- column 21, lines 53);

As per "receiving at least one value from the determined sources in response to the requesting;" Theimer further describes receiving a value from the determined sources, such as Location and Badge services (column 8, lines 62-column 9, lines8, column 10, lines 56-column 11, lines 4); and

As per "sending at least one of the received values to the client." Theimer further describes sending the value to a to a client, application or user (column 9, lines 24-37, column 28, lines 40-51).

With regard to claim 46:

As per "... the context attributes represent information about a user of the portable computer." (column 10, lines 4-19).

With regard to claim 47:

As per "... the context that is represented is a current context." (column 10, lines 20-38).

With regard to claim 48:

As per "... the requesting of a first source to supply a value for the one context attribute prompts the first source to retrieve input information related to the one context attribute and to generate the value for the one context attribute based on the retrieved input information." (column 16, lines 26-48;column 21, lines 19-39).

With regard to claim 49:

As per "... receiving of the sent value by the client prompts the client to present information to a user of the client." (column 16, lines 26-48).

With regard to claim 50:

Independent claim 50 corresponds generally to independent claim 43 and recites similar

features in computer-readable medium form, and therefore is rejected under the same rationale.

With regard to claim 51:

Independent claim 51 corresponds generally to independent claim 43 and recites similar

features in a portable computer device form, and therefore is rejected under the same rationale.

With regard to claim 57:

As per "A computer-implemented method for providing information about a

current state that is modeled with multiple state attributes, each of the state attributes

having multiple sources available to supply values for the attribute," similarly, Theimer

describes a computer-implemented method for providing information about a current

state, such as user's location, that is modeled with multiple state attributes, such as user in

office, near a printer, alone, etc, each of the state attributes having multiple sources, such

as Location service and Badge service, available to supply values to the attributes

(column 7, lines 18-column 8, 56),

as per "sending to an intermediary module a registration message indicating an

ability to supply values for an indicated one of the state attributes of the modeled current

state;" Theimer describes sending to the UserAgent a registration message from one of

the services (column 7, lines 18-column 8, lines 56); and

as per "for each of multiple requests for a value of the one state attribute,

receiving the request from the intermediary module, the sending of the request from the

intermediary module based on an request received by the intermediary module from a

client;" Theimer also describes the service receiving the request from UserAgent

(column 10, lines 56-column 11, lines 4); and

as per "in response to the receiving of the request, retrieving multiple pieces of input

information about the modeled current state, generating a value for the one state attribute based

at least in part on the retrieved input information;" Theimer describes the service receiving the

request from the useragent and the service generating a value (column 11, lines 16-48, column

20, lines 47- column 21, lines 53);and

as per "sending to the intermediary module an indication of the generated value so that

the intermediary module can supply the generated value to the client." Theimer further describes

sending the value to the useragent ; then the useragent supply the value to the client (column 9,

lines 24-37, column 28, lines 40-51).

With regard to claim 59:

As per "...determining an effective time at which the generated value is most accurate,

and wherein the sending of the indication of the generated value includes an indication of the

determined effective time." (column 17, lines 51-column 18, lines 2, column 18, lines 19-36).

With regard to claim 60:

As per "... sending to the intermediary module a registration message indicating an

ability to supply values for another one of the state attributes;" (column 7, lines 18-column 8,

lines 56);

As per "generating a value for the another state attribute based at least in part on

received input information about the modeled current state, and sending to the intermediary

module an indication of the generated value for the another state attribute." (column 11, lines 16-

48, column 20, lines 47- column 21, lines 53);

<u>With regard to claim 61:</u>

As per "... the state attributes represent information about a user of the computer."

(column 10, lines 4-19).

<u>With regard to claim 62:</u>

Independent claim 62 corresponds generally to independent claim 57 and recites similar

features in computer-readable medium form, and therefore is rejected under the same rationale.

<u>With regard to claim 63:</u>

Independent claim 63 corresponds generally to independent claim 57 and recites similar

features in a computer system form, and therefore is rejected under the same rationale.

7.   Claims 9, 36, 38, 39, 42, 43, 50, 51, 57, 62, and 63 are rejected under 35 U.S.C. 102(a) as

being anticipated by Joachim Biskup et al, "Towards Secure Mediation," Oct. 1998.

The above independent claims recite a plurality of steps of information exchange among

user/client, mediator/proxy, and server/information source. Likewise, Biskup et al describes

(pages 8-10) and illustrates (Fig. 3) similar steps as claimed in the present invention. Thus,

Biskup et al anticipates the above claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Theimer et al (5, 611,050) in view of Schmidt et al ,"There is more to Context than Location," Nov 1998.

With regard to claim 18:

While Theimer describes several context information, such as information about the user of the device and the device itself, but "the represented information reflects a modeled mental state of the user" is not described. However, Schmidt describes the shortcomings, information on the user comprises for instance knowledge of habits, mental state, or physiological characteristics (section 2). Furthermore, Schmidt describes that the use of several sensors improves application of mobile device. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate other sensor, such as mental state sensor with Theimer because having several sensors integrated with the system will provide a better and accurate result or value.

Allowable Subject Matter

9. Claims 1-8, 52-56 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of records fails to describe the limitations recited in the above claims, such as a method of claim 1 recites, among other things, a wearable computer for providing information about a current state of a user of the wearable computer, the current state modeled with multiple state attributes, the wearable computer executing a plurality of state server modules (SSMs) to supply values for the state attributes, executing a plurality of state client modules (SCMs) to receive and process values for the state attributes, and executing an intermediary module to facilitate exchange of state attribute values. The method includes a plurality of steps or functions implemented by each module for exchanging information (value) among, SCM (as information value requester), SCM(as mediator) and SSM (as information provider). Moreover, these steps are not shown in the prior art of records.

Also, a computer implemented method of claim 52 recites, among other things, sending to the intermediary module a third request for a value of a second of the state attributes; receiving from the intermediary module a third value for the second state attribute that was supplied from the first source, the third value obtained by the intermediary module from the first source in response to the sent third request and sent from the intermediary module in response to the sent third request; and using at least one of the received values to perform processing based on the modeled current state. Similarly Independent claims 55 and 56 correspond generally to independent claim 52 and recite similar features in computer-readable medium form, and device (apparatus) form, respectively, and therefore are allowed under the same rationale.

10.   Claims 13, 23-25, 31,44, 45, and 58 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the

prior art of records fails to describe a method, wherein the received request from the first client

additionally includes an indication of a source for the values of the one attribute, and wherein the

supplying of the obtained value to the first client occurs only if the first source is the indicated

source (of claim 13). The prior art of records also fails to describe "...obtaining of the value from

the first source involves requesting the first source to supply the value, wherein the first source

includes a group of instructions to be executed to produce a value for the one attribute, and

including loading and executing the group of instructions in response to the requesting of the

first source to supply the value, the loading and executing so that the first source can produce the

requested value." (of claim 23). The prior art of records also fails to describe s per "... the first

client includes a group of instructions to be executed to receive a value for the one attribute, and

including loading and executing the group of instructions in response to receiving of a value for

the one attribute from a source, the loading and executing before the receiving of the request

from the first client." (of claim 24). The prior art of records also fails to describe "...receiving

from the first client an indication of a second of the state attributes and an indication that a

source for a value for the second state attribute is to be a same source as for the supplied value

for the one attribute, and selecting a value to be supplied to the first client for the second state

attribute that is received from the same source." (of claim 25). The prior art of records further

fails to describe "...receiving from a source a current value of a specified state attribute, the

receiving not in response to requesting the current value from the source; and in response to the

receiving of the current value, determining at least one client having an interest in receiving

values for the specified state attribute; and sending the received current value to each of the

determined clients." (of claim 31). The prior art of records further fails to describe "after

requesting each of the determined sources to supply the value: receiving from a first source an

indication of an ability to supply values for the first attribute, the first source not one of the

multiple sources; and after the receiving of a next request for a value of the first attribute,

requesting the first source to supply a value of the first attribute." (of claim 44). The prior art of

records further fails to describe "after requesting each of the determined sources to supply the

value: receiving from one of the determined sources an indication of an inability to supply values

for the first attribute; and after the receiving of a next request from a client for a value of the first

attribute, requesting a group of sources to supply a value of the first attribute such that the group

of sources does not include the one determined source." (of claim 45). The prior art of records

further fails to describe "generating an uncertainty value associated with accuracy of the

generated value, and wherein the sending of the indication of the generated value includes an

indication of the generated uncertainty value." (of claim 58).

11.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for
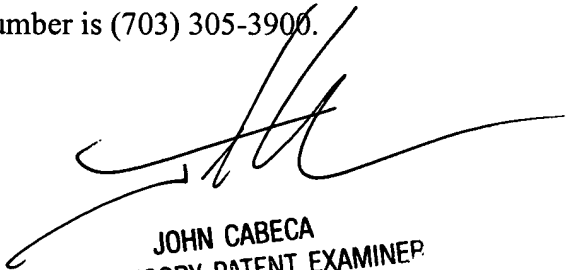
Allowance."

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Tadesse Hailu, whose telephone number is (703) 306-2799. The

Examiner can normally be reached on M-F from 10:00 - 6:30 ET. If attempts to reach the

Examiner by telephone are unsuccessful, the Examiner's supervisor, John Cabeca, can be

reached at (703) 308-3116 Art Unit 2173 CPK 2-4A51.

13.   The official Central fax number is (703) 872-9306.

14.   Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Tadesse Hailu
Oct 17, 2003

JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100